

AMENDMENTS TO THE CLAIMS

In the Claims: Please cancel original claims 1-12 and add new claims 13-19.

1-12. (canceled)

13. (new) A process for delivering a naked nucleic acid to an extravascular cell of a mammal, comprising: a) injecting the naked nucleic acid into a blood vessel lumen, *in vivo* ; b) increasing the propensity for macromolecules to move through vessel walls and enter the extravascular space; and, c) delivering the naked nucleic acid to the extravascular cell outside of the blood vessel.
14. (new) The process of claim 1 wherein the nucleic acid consists of single strand nucleic acid.
15. (new) The process of claim 1 wherein the nucleic acid consists of double strand nucleic acid.
16. (new) The process of claim 1 wherein the nucleic acid consists of RNA.
17. (new) The process of claim 4 wherein the RNA consists of single strand RNA.
18. (new) The process of claim 4 wherein the RNA consists of double strand RNA.
19. (new) The process of claim 3 wherein the double strand nucleic acid consists of a nucleic acid sequence comprising 10 to 50 bases.
20. (new) The process of claim 7 wherein the double strand nucleic acid consists of a nucleic acid sequence comprising 18 to 25 bases.
21. (new) The process of claim 6 wherein the double strand nucleic acid comprises a sequence that is similar to a gene sequence that is expressed.
22. (new) The process of claim 1 wherein the nucleic acid consists of anti-sense nucleic acid.
23. (new) The process of claim 1 wherein the propensity for macromolecules to move through vessel walls and enter the extravascular space is increased by inserting papaverine into the vessel with the naked nucleic acid.
24. (new) The process of claim 1 wherein delivery of the nucleic acid results in decreased expression of a gene.
25. (new) The process of claim 12 wherein the gene is an endogenous gene.
26. (new) The process of claim 12 wherein the gene is a viral gene.
27. (new) The process of claim 1 wherein the vessel consists of a tail vein.
28. (new) The process of claim 1 wherein the parenchymal cell is selected from the group consisting of liver cells, spleen cells, heart cells, kidney cells, prostate cells, skin cells,

- testis cells, skeletal muscle cells, fat cells, bladder cells, brain cells, pancreas cells, thymus cells, and lung cells.
29. (new) A process for delivering a naked nucleic acid to an extravascular cell of a mammal, comprising: injecting the naked nucleic acid into a tail vein, increasing pressure inside the tail vein and delivering the naked nucleic acid to an extravascular cell not within the tail.
30. (new) The process of claim 17 wherein the parenchymal cell is a cell selected from the group consisting of liver cells, spleen cells, heart cells, kidney cells, prostate cells, skin cells, testis cells, skeletal muscle cells, fat cells, bladder cells, brain cells, pancreas cells, thymus cells, and lung cells.
31. (new) The process of claim 17 wherein the nucleic acid comprises sequence that is similar to an expressed gene sequence.